

Challenges of Utilizing Agricultural Information Sources by Small Scale Farmers in Nasarawa State, Nigeria

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Abstract

This paper discusses the challenges of utilizing agricultural sources by small-scale farmers in Nasarawa State of Central Nigeria. Poorly trained extension workers contribute significantly to inadequacy of interpersonal communication strategy which lent cognizance to the use of mass media support in conducting information dissemination to farmers in the area. It was discovered that mass media strategy in the absence of education, material resources, appropriate infrastructure and technical skills was unlikely to eradicate inaccessibility and ineffective information utilization among rural farming community. There is need for extension managers to improve both the quality and quantity of their extension personnel through continued staff recruitment and training.

Keywords: Inter-personal channels; mass media, dissemination of information, persuasion, Johari windows, process of communication,

1.0 INTRODUCTION

Information helps to relate with one another. Stanley (1990) opined that information is one of the basic human needs after air, water, food and shelter. According to Camble (1992), man requires information to be able to manipulate factors of production such as land, labour and capital resources into meaningful and productive use.

Agricultural information covers all published and unpublished knowledge on general aspect of agriculture and consists of innovations, ideas and technologies of agricultural policies (Aina, 1990). According to Ozowa (1995), agricultural information provides the data used for decision making.

Agricultural information is needed for overall development of agriculture for the improvement of living standard of farmers. The objectives of agricultural information can hardly be realized if farmers have no access to information (Olawoye, 1996). Agricultural information helps to create awareness among farmers about agricultural technologies for adoption. Agbamu (2006) is of the view that information is the first and indispensable step of an adoption process. Adefuye and Adedoyin (1993) suggest that for a steady flow of accurate, understandable and factual agricultural information, farmers must know and act in accordance with agricultural communication content. Therefore, how far people progress in whatever they are doing in agriculture depends largely upon the availability and access to accurate and reliable information.

Obinne (1994) believes that the major setback in agricultural production in Nigeria is not lack of recommended practices needed for economic growth and rural transformation but that of disseminating the recommended practices to end-users. According to Adeniji (1977) and Idowu (1994), a body of knowledge amassed from research as well as indigenous technical knowledge in the contemporary world is immense. They argue that the impact of the knowledge on the course of human development lags behind this enormous knowledge. They claim that the situation is more so in the field of agriculture where the system that form the entity are stratified into highly educated technology generation (researchers), relatively well educated technology dissemination system (extensionists) and a mass of technology-utilizing system (farmers) who have little or no formal education. This is the situation in Nigeria today. The implication of this stratification, according to them, is that messages, production recommendations, field problems and innovations transfer from one system to the other as well as within each system have not been effective achieving a commensurate development in agriculture. Communication, therefore, is conceptualized as a process of information flow from a source to a receiver with the intent to change the knowledge of the latter. Adebayo (2004) opines that communication is a key process in information dissemination in agriculture. In a similar vein, Udall (1983) suggests that communication can be regarded as a process by which one person (or group) shares and imparts information to another.

The traditional farmers in Nasarawa State, generally, tend to be suspicious of all new ideas, especially those from theoretical people such as scientists and extension officers. One main reason for harbouring the suspicious attitude lies in the culture of the farmers and of the society in which they live. Most farmers in Nasarawa State have not understood the principles of scientific agriculture and have little interest in gaining information on those principles. They see their farms as ways of life and strive hard for incomes which are considered reasonable within their communities. They, also, reduce their risks by having subsistence farm on which they produce almost everything they require.

Farouky (1963) reports that negative impressions can only be removed by extension workers. Common

weakness of information utilization in the study area lies on scarcity of precise knowledge of real situation and the problems of the farmer, not in a general way, but as they affect farmers in Nasarawa State. Agbamu (2005) agrees that in many developing countries, too little attention is paid to the understanding of farm-level realities. Always, there is a wide socio-economic and technological gap between those responsible for preparing and carrying out development plans and the farmers themselves. In most cases, farmers in developing countries, who constitute extension clients, are never involved in planning the extension programme but depend on the relatively superficial observation of field officers or arm-chair deduction and rely on generalization of programme planners. Adebayo and Adebayo (2005) opine that behaviour and motives could be attained by the development of a sense of mutual trust and openness or through correcting distortions in communication by way of constructive feedback. In Nigeria, according to Njoku (1991), extension agents are the main sources of farmers' information on improved technologies and are, also, responsible for educating farmers on the use of these improved technologies.

The broad objective of this paper is to discuss the challenges of information utilization sources used by small scale farmers in Nigeria using Nasarawa State as an example. We will:

- i) Discuss the problems associated with the agricultural information sources used by farmers.
- ii) Analyse the utilization of appropriate communication channels in agricultural services.
- iii) Describe the process of interpersonal and mass media communication.
- iv) Determine the roles of extension service in information mobilization and dissemination.

Problems of Information Utilization

These extension agents are used as the main agents of liaising between the extension services and the beneficiaries (SPORE, 1997).

Hybells and Weaver (1992) perceive communication as a means to livelihood for effective communication and standard for signifying better and meaningful ways of live. Bello (2007) reports that 52.28 percent of the extension workers in Nasarawa State had HND/B.Sc. (intermediate, University and Postgraduate levels) degree certificates. By implication, the rest of the extension workers serving the study area had qualifications within the range of non-formal, primary and secondary levels. Abdullahi (2003) argues that there was bound to be a problem in the effectively delivery system because the higher the qualified extension agents the better their handling communication between them and the farmers they were meant to interact with.

Another important factor hindering effective information utilization between farmers and extension workers in the study area is the gross inadequacy of extension agents with a ratio of 1:1500 and a large area of coverage described as "just adequate" by the respondents (Bello, 2007).

Agbamu (2000) opines that participation of agricultural extension workers in adaptive research trials allows them to become familiar with the technologies they are expected to promote and, also, helps to ensure the sociological dimensions of farming are not neglected in the recommended improved farming practices. Bello (2007) reports that 66.70 percent of the extension workers of the Nasarawa State Agricultural Development Programme (NADP) expressed dissatisfaction with their mobility arrangement by the NADP while 63.3 percent of them claimed of lack of personal means of transportation. Orivel (1983) observes that failure to provide transportation was one of the main causes of lack of effectiveness among extension workers. Under remunerations of extension staff contributes immensely to lack of motivation and quick turn-over of extension staff with ultimate poor level of performance of T & and V system (Orivel, 1983). The more accessible the channels of communication are the more regularly they would be used (Foo, 1980). In Nasarawa State, most of the farmers leave home as early as 7.30 GMT for their farms and get back between 10.00 GMT and 10.00 GMT (Bello, 2007). Therefore, the programmes presented in the morning would not be accessible to the farmers.

Ozowa (1995) reports that poor reception quality is one of the obvious constraints in the use of broadcasting media in Nigeria. Generally, in agricultural extension, both interpersonal communication channels and mass media have been widely applied to disseminate information to farming communities. Okwu and Obinne (2009) suggest that such communication channels include extension agents, farmer-to-farmer contact, friends and relative. Other channels include mass media (newspaper, magazines, posters) and electronics media (radio, television, film, slides, file strips).

Yahaya (2002) states that the inadequacy of the interpersonal communication strategy in development has lent credence to the emergence of media support in development process. Okwu and Obinne (2009) posit a popular generalization from communication research that interpersonal communication is more efficacious than mass communication in bringing about social change. They argue that mass media, while perhaps necessary to achieve economic of scale, are inferior to personal contact as means of persuading people to change behaviour.

The Process, Concept and Strategies of Interpersonal and Mass Communications

The communication process starts with the source or sender who is an individual or corporate entity that has something to say to an individual or group individuals. Communication effect forms a critical element in the

communication process. What constitutes communication effects are the changes in receiver's behaviour which occur due to transmission of a message. A notable, although undesirable, element in the communication process is noise. Noise tends to be present in every state of the communication process. Noise is regarded as a technical term for all forms of obstacles which tends to reduce the speed or quality of communication. The negative effects of the communication barrier on the communicated message (either in mass media or interpersonal communication) is described technically as message entropy. According to Merrill and Lowenstein (1979), message entropy is a measure of disorder or a tendency towards disorganization and disorientation, a loss of, or change in primary or basic information, a trend toward information anarchy.

Wilcox (1977) states that effectiveness of persuasive communication depends on the operation of three factors. These factors, he argues, include (i) the needs of the persuaded (the person being persuaded); (ii) the credibility of the persuader, and (iii) the logic of the message as shown in fig. 1

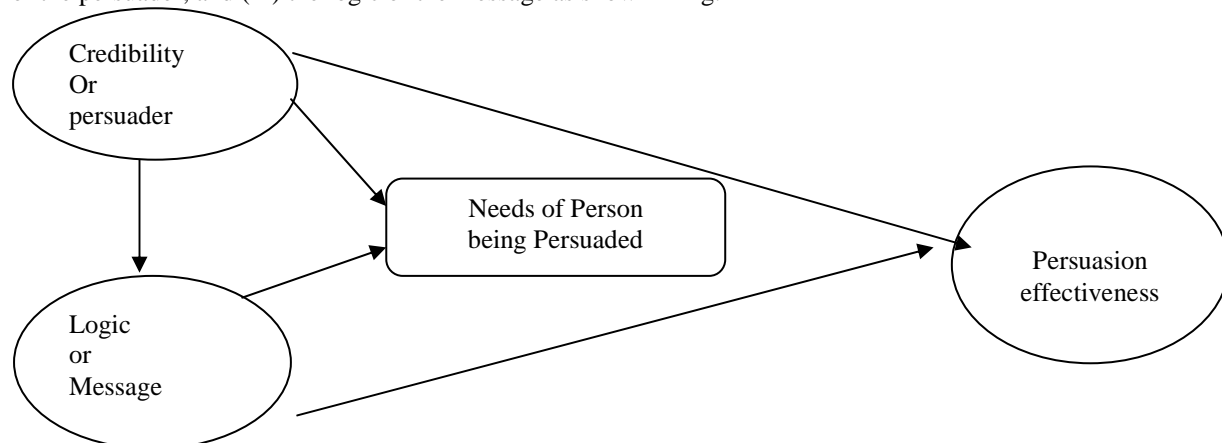


Figure 2: Three Factors Model of Persuasion effectiveness (modified from Wilcox (1977))

Source: : Wilcox R P. (1977) *Communication at Work: Writing and Speaking* P. 284.

in Ajieh, P. C. and P. C. Ke (2009). *Persuasive Message Design Approaches for Agricultural Information Delivery: Perspectives in Agricultural Extension and Rural Development*, . J. U. Agbamu (ed).

Interpersonal communication is identified with the presence of two or more individuals who have the ability to provide ideas for others to act upon in social contact and context. Interpersonal communication process is however, mostly unstructured with relatively few rules governing the frequency, form or context of the message. In interpersonal communication setting, the process is automatic and participants decide to speak when they choose and to whom they choose. Burund (1968) believes that it is the episodic and aliptical character of interpersonal discourse with its topical vacillations and alternating strategies that its most widely recognized feature. It is generally believe that, when people engage in interpersonal communication with one another, their fields of experience begin to overlap. This overlapping of fields of experience is called homophily. Bittner (1989) opines that the more homophily that is present, the more the change for effective and meaningful interpersonal communication.

According to Nwosu (1996), mass media as devices employed by anyone involved in a mass-mediated communication situation for moving messages across distance or time. Bittner (1989) distinguished between mass communication and mass media by asserting that mass media requires the use of intermediate transmitter of information while mass communication involves communicating messages through a mass medium to a large number of people. Mass media can be broadly classified into two or three types depending on the criteria for the classification.

Constraints to Utilization of Mass Media and Interpersonal Channels

In developing countries, such as Nigeria, the use of mass media in agricultural technology transfer to rural farmers has its attendant limitations. Technologically, the use of mass media in the absence of education, technical skills appropriate infrastructures, material resources and appropriate land reforms is unlikely to eradicate the inequality in rural areas. Mody (1991) claims that printed media serve little purpose in the villages of developing countries dominated by illiterates.

Even though literacy level (such as ability to read and write) does not constitute a pre-requisite for the use of electronic media for the purpose of agricultural extension, it cannot be effectively used in multi-lingual societies and areas with different agro-climatic zones like the study area. At the same time, it may not be feasible to translate a particular programme into the local languages in a multi-lingual society. The mass media outfits, according to TARADATT (2002), constitute unusual top-down structures with limited scope for rural

participation in the process of production. Most often than not media technology exhibits the ability to narrow the geographical distance without obvious discernable bias.

Interpersonal channel of communication has the disadvantage of being costly in terms of staff requirements, time and clientele's movement compared with mass media. This is because of the number of clientele that can be reached within a given period of time through process of interpersonal channels. Generally, the quality of interpersonal channels is low due to the fact that messages through theme become greatly distorted as the flow along interpersonal chains. Fenley and Williams (1984) believed such visits could simply degenerate into personal services by the extension agent.

Role of Extension Service in Information Mobilization and Dissemination in Nasarawa State

An individual who is prone to being persuaded by a given communicator attempts to associate himself with the communicator in the manner that their views agree or not agree. Newcomb (1953) postulated a general motivation model producing a "strain towards symmetry" in the attitudes of two communicators. A and B, toward an object, X. He believed that each communicator has a simultaneous co-orientation toward his or her communication partner (usually the level of attraction and feelings toward the partner) and toward the object of communication (the degree of positive or negative attitude about X). Newcomb identifies four basic components of this relational system (figure 2) below: (i) A's attitude towards X; (ii) A's attraction to B, (iii) B's attitude toward X; and (iv) B's attraction to A.

Based on the model, both A and B have natural propensity toward balance in their co-orientation toward X and their partner. If for example, A has negative attitude about X and very positive attraction towards B, but B has a positive attitude toward X and toward A, then 'A' will experience an imbalance resulting in a push toward revision of attitude to regain balance.

According to Newcomb the strain toward balance can be resolved by one or a combination of: (i) A decreasing the amount of liking for B; (ii) A changing his attitude toward X; and (iii) A changing. B's attitude about X to align with A's. Whether A strives for simmering or asymmetry with B in relation to X would depend upon A was a persuasive or an unpersuasive individual. Newcomb observes that persuasiveness can be identified with agreement-seeking. He maintains that persuasive individual makes a series of explicit or implicit "comparisons" between his own positions and opinions of others seeking to produce and maintain agreement or reduce disagreement.

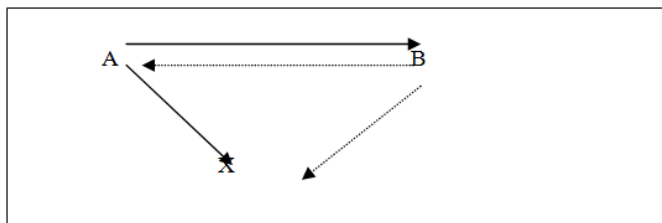


Figure 2: Newcomb's A - B - X or Psychological model

Source: Wilmot Model, W. W. (1987) Dyadic communication P. 104

In: Persuasive message Design Approaches for Agricultural Information Delivery.

Perspective in agricultural Extension and Development) J. U. Agbamu (ed).

Adebayo and Adedoyin (2005) categorized speaking communication based on a number of processes (Table 1).

Table 1: Communication Types and Strategies

Face-to-face Strategies	Mass oral Speed Theatre	Interpersonal Conversation Discussion Interviews Small group meeting Telephone
Mass Strategies Media Electronic	Radio Television Film Slide Presentation	
Print	Newspapers Book Leaflets Magazine Posters	Letter Telegram
Others	Exhibition Talking drum Campaign	Messenger Town Crier opinion leaders
Other Strategies Radio-phones Radio message, Telex messages, Electronic mails, Internet, Text messages, Intercommunication		

The complexity of human nature and the restrictions imposed by human interactions often complicate the communication process. The solution is to either develop a sense of mutual trust and openness or correct distortions in communication through constructive feedback. To achieve mutual trust and openness, a device known as the Johari Window (Figure 3) could be applied to increase personal and interpersonal awareness. The window consists of four quadrants as follows:

- Quadrant 1 - The free an open area, refers to behaviours known to self and to others.
- Quadrant 2 - The blind area, refers to things about us that others can see but of which we are unaware of.
- Quadrant 3 - The avoided or hidden area which indicates things we prefer to keep to ourselves (hidden agenda or personal feelings)
- quadrant 4 - The area of unknown activity representing the sort of things that are not accessible to us nor to others, but which may eventually be revealed. Such behaviours and motives may hold the key to a lasting solution to the management of the environment in any community. A change in any quadrant will affect all the other quadrants.

	Known to self	Not known to self
Known to others	Open Area (1)	Blind Area (2)
Not known to others	Hidden Area (3)	Unknown Area (4)

Source: Figure 3 – The Johari Window

Communication feedback (response from the receiver to the source) can be used to reinforce a message and make the subject amend his/her ways without feeling compelled if handled with sensitivity and judgement. Adebayo and Adedoyin (2005) claimed that feedback is more effective if it is:

- a. Descriptive rather than evaluative.
- b. Specific rather than general
- c. Directed towards behaviour that the receiver controls
- d. Solicited, rather than imposed.
- e. Well turned
- f. Checked to ensure clear communication.
- g. Given in a complementary group and: if
- h. It takes into account the needs of both the receiver and giver of feedback.

Feedback is one of the best ways of getting evidence of effective communication. It enables us to learn about how others see us and how we affect them. It is, thus, an ingredient in the process of evaluation and improving the effectiveness of communication.

Prospects of Information Utilization

Real communication of new ideas will not take place without personal contact and confidence between the sender and the receiver of the idea. According to van den Ban (1972), rigid social structure is one of the reasons why traditional farmers usually become suspicious of all government actions. He believes that farmers do not trust the high-status government officials and are not confident that the officials will act in their interest. Farmers in Nasarawa State have little understanding of changes elsewhere hence have little confidence in anybody from outside their community. Opinion leaders become very useful.

Opinion leaders, according to Okwu and Obinne (2000), usually characterized by more use of the mass media, higher levels of gregariousness and self-perception to influence others as intervening variable between the mass-mediated message and audience is significant in the study area for diffusion of agricultural innovations where the more information – active farmers become opinion leaders to the less active ones. Pickering (1983) suggests that in areas emerging from a large subsistence agriculture, extension services are generally poorly organized and frequently are subject to political and administrative abuse. He believes that many extension agents tend to be younger than their audience – in general a grave disadvantage in rural traditional societies. According to Awa (1988), lack of sensitivity to local belief and knowledge can severely reduce the ability of technical and extension workers to learn from local peoples' knowledge and experience, which could otherwise render a development project more worthwhile to all concerned. Beynon et al. (1988) as reported by Agbamu (2005) states that agricultural extension was associated with information, the public good character of which depended on (a) nature of its provision by mass media or personal contact (b) its speed of diffusion and time sensitivity, (c) whether it was embodied in physical inputs. Pure agro-information, according to him, which was not embodied in a physical product such as production was, generally, regarded as both non-subtractable and non-excludable. Agbamu claimed that if the information diffused rapidly there was incentive for farmers, not to pay for the information by obtaining the information from other farmers.

Further prospects of utilization in the study area will be the likely emergence of non-governmental organization (NGOs) that will be willing to provide extension service in poor rural communities as agricultural development aid. In this case, it could be likely that information delivery could become a tool for market completion that would be used by private extension providers.

Conclusion

Both interpersonal channels and mass media communication strategies are applicable sources of disseminating information to farmers in Nasarawa State of Nigeria. Problems of limited and poorly trained extension workers as well as inadequacies of interpersonal communication are considerable. Such inadequacy of interpersonal communication strategy is considered attributable to the use of mass media support in conducting information dissemination to farmers. Mass media strategy in the absence of education, material resources, appropriate infrastructures, and technical skills is unlikely to eradicate inaccessibility and information utilization among farming communities. Knowledge of real situations and problems of farmers as they affect farmers are a pre-requisite to gaining the confidence of farmers in the rural communities.

Recommendations

On the basis of the foregoing, the following recommendations have been made:

- a. There is the need for the managers to increase the number of extension workers in the study area with the view to enhancing the benefits derivable to the potential beneficiaries through research-extension-farmers' linkage among farming communities.
- b. Training facilities be made available in the institutions especially established to train agricultural workers so that products of such institution are well prepared to provide improved quality of agricultural messages to farmers.
- c. Training needs of extension workers be identified in the areas of agriculture and communication to serve as guide to organizing training seminars periodically to fill the gaps in knowledge and skills of farmers.
- d. Impressions for data collection be made to the potential beneficiaries of information sources so as to ensure confidence building mechanism between the farming community and the extension workers.
- e. Needed infrastructural facilities be made available so as to ensure effective mass media support for in dissemination to farmers.
- f. Opinion leaders, as an intervening variable between the mass-mediated message and farmers, should be encouraged to ensure overlapping of field experience for the purpose of effective avenue for intelligent dialogue.

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